Table A18. Equations for current expenditures per pupil in fall enrollment, estimated average annual salaries of teachers, and education revenue receipts from state sources

Dependent variable	Equation	R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Current expenditures per pupil	ln(CUREXP) = - 3.4 + 0.64ln(PCI) + 0.36ln(SGRANT) (-4.11) (3.28) (2.08) - 0.33ln(ENRPOP) (-1.82)	0.994	1.67	AR1	0.70 (5.35)	1967–68 to 2000–01
Estimated average annual salaries	ln(SALRY) = 11.3 + 0.39ln(CUREXP) + 0.52ln(ENRPOP) (12.24) (5.36) (3.38) + 1.76ln(ENR1/ENR2) (3.54)	0.952	1.49	AR1	0.85 (8.73)	1969–70 to 2000–01
Education revenue receipts from state sources per capita	ln(SGRNT) = 5.2 + 0.63ln(PERTAX1) + 0.38ln(ENRPOP) (4.62) (12.40) (2.16) - 0.028ln(RCPIANN/RCPIANN1) (-1.95)	0.981	1.95	AR1	0.60 (3.77)	1967–68 to 2000–01

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods*, New York: McGraw-Hill, 1972, pages 251–252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast when correcting for autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics*, New York: John Wiley and Sons, 1985, pages 315–318.

Where:
CUREXP = Current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars
SALRY = Average annual salary of teachers in public elementary and secondary schools in constant 1982–84 dollars
SGRNT = Local governments' education revenue receipts from state sources, per capita, in constant 1982–84 dollars
PCI = Disposable income per capita in constant 1996 dollars
ENRPOP = Ratio of fall enrollment to the population
PERTAX1 = Personal taxes and nontax receipts to state and local governments, per capita, in constant 1982–84 dollars lagged one period
RCPIANN = Inflation rate measured by the Consumer Price Index
RCPIANN1 = Inflation rate measured by the Consumer Price Index lagged 1 period
ENR1 = Fall enrollment lagged one period
ENR2 = Fall enrollment lagged two periods

NOTE: R^2 indicates the coefficient of determination. Rho measures the correlation between errors in time period t and time period t minus 1. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics; Elementary and Secondary School Current Expenditures Model; Elementary and Secondary Teacher Salary Model; and Revenue Receipts from State Sources Model.
(This table was prepared July 2003.)